

FIG. 3

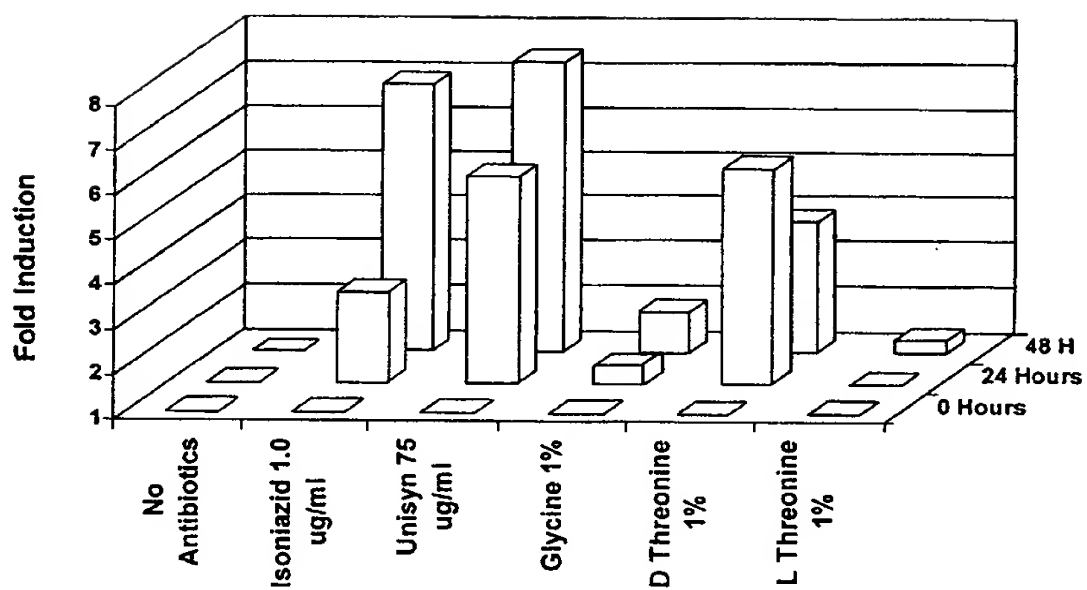


FIG. 4



Cosmid MTCY279:

9048 cac ggctacgaca

9061 tccacggata agttccggac cggcgtaggg gtgccccatt

Cosmid MTY13E10:

1 tcccctaate ccctaacgcg gcggccaggc cgatcccgat aggtgtttgg ccggettgcg
61 gatcagaccc cgatttcggg gtgaggcgga atccatagcg tcgatggcac agcgccggtc
121 acgcccggcg acagcttctt cgattgaagg gaaatgaaga tgacctcgct tatcgattac
181 atcctgagcc tgttccgcag cgaagacgcc gcccggtcgt tcgttgccgc tccgggacgg
241 gccatgacca gtgccgggct gatcgatac gcgccgcacc aaatctcacc ggtggcgggc
301 aatgtggtgc cgggtctgaa tctgggtgcc ggcgaccca tgagcggatt gcggcaggcc
361 gtcgccgctc ggcatggctt tgcgcaggac gtcgccaatg tcggcttcgc cggtagcgcg
421 ggcgcgggggg tggcaagcgt catcacgacc gatgtcgggt cgggectggc tagcggactg
481 ggtgctgggt tcttgggtca ggggtggcctg gctctcgccg cgtaagcggg tggtttcggc
541 ggtcagtcg gcttggctgc ccaggtcggg ctgggtttta ctgccgtgat tagggccgag
601 gtcggcgctc aggttgggtc tgggttaggt attgggacgg gtcctgggtgc tcaggccggg
661 atgggctttg gcggcggggt tggcctgggt ctgggtgggtc aggccggcgg tgtgatcgg
721 gggagcgcgg ccggggctat cgggtccggc gtcggcggtc gcctaggcgg caatggccag
781 atcggagttg ccggccaggg tggcgtggc gctggtgtcg gcgctggtg cggcgccag
841 gcgggcatcg ctaccagat cgggtgttca gccggtgggt ggctcggcg cgctcgcaat
901 gtcagcggcc tgaccgggt cagcagcaac gcagtgttg ctccaacgc aagcgccag
961 gcgggggtga tcgccagtga aggcgtgcc ttgaacggcg ctgctatgcc tcactgtcg
1021 ggcccgttag ccggtgtcgg tgtgggtggg caggccggcg ccgctggcgg cgccgggtg
1081 ggcttcggag cggtcgggca cccgactcct cagccggcgg ccctgggcgc ggctggcgtg
1141 gtggccaaga ccgaggcggc tgctggagtg gttggcgggg tcggcggggc aaccgcggc
1201 ggggtcggcg gggcacacgg cgacatcctg ggccacgagg gagccgact gggcagtgct
1261 gacacgggtc acgccgggtg cagcccgctc gagcatggct tggctctgcc cagtggcccc
1321 ctgatccacg gcggtaccgg cggctatggc ggcatgaacc cggcagtga cgtgcgcg
1381 gcaccgcaag ttccggcgcg ggcccagccg atgaccacgg cggccgagca cagccggcg
1441 gttacccaac cgcagcacac gccggtcgag ccgccggtcc acgataagcc gccgagccat
1501 tcggtgtttg acgtcgggtc cgagccgccc gtgacgcaca cgccgcccgc gccatcgaa
1561 ctgccgtcg acggcctttt cgactaccc ggggtctgat tcgcgagccg atttcagaa
1621 ccggtgggga cgttcattgt ccccgccggt ttgtgcgcat accgtgatct gaggcgtaaa
1681 cgagcgagaa agtggggcga caggtgacc cagcccgatg acccagtcg ggtcgggtg
1741 atcgtcgaac tgatcgatca cactatccc atcgccaaac tgaacgagc tggatgata
1801 gtacagcggg tgacgcgggc tcgccagcgg atcaccgacc cgcaggtccg tgtggtgat

FIG. 5A



1861 gccgggctgc tcaaacaggg caagagtcaa ttgtcaatt cgttctcaa cctgccgcg
1921 gcgcgagtag gcatgacga ggccaccgtg gtgatcaccg tcgtaagcta cagcgcccaa
1981 ccgtcgccc ggcttgctt ggccgcccgg cccgacggga caaccgcagc ggttgacatt
2041 cccgtcgatg acatcagcac cgatgtgctt cgggtctccg acgccggtgg ccgcgaggtg
2101 ttgcgggtcg aggtcggcgc gccagcccc ctgctgcggg gcgggctggc gttatcgat
2161 actccgggtg tgggcggcct cggacagccc cacctgtcgg cgacgtggg gctgtaccc
2221 gaggccgatg ccgtcttggg ggtcagcgac accagccagg aattcacga acccgagatg
2281 tggttctgct ggcaggccca ccagatctgt ccggtcgggg cggctgtggc caccaagacc
2341 gacctgtatc cgcgtggcg ggagatctc aatgccaatg cagcacatct gcagcgggccc
2401 cgggttccga tgccgatcat cgcagtctca tctactgttc gcagccacgc ggtcacgctt
2461 aacgacaaag agctcaacga agagtccaac ttccggcga tcgtcaagtt tctcagcgag
2521 cagggtcttt cccgcgcgac ggagcgagtg cgtgctgggg tactcggcga aatacgttcg
2581 gcaacagagc aattggcggg gtctctaggt tccgaactat cggtggtcaa cgacccgaac
2641 ctccgtgacc gactgtctc ggatttgag cggcgcaaac gggaagccca gcaggcgggtg
2701 caacagacag cgctgtggca gcaggtgctg ggcgacgggt tcaacgacct gactgtgac
2761 gtggaccacg acctacgaac ccgttccgc accgtcaccg aagacgcga gcgccagatc
2821 gactcctgtg acccgactgc gcattgggccc gagattggca acgacgtcga gaatcgatc
2881 gccacagcgg tcggcgacaa ctctgtgtgg gcataccagc gttccgaagc gttggccgac
2941 gacgtcgtc gctccttgc cgacgcgggg ttggactcgg tctgtcagc agagctgagc
3001 cccacgtca tgggcacga ctccggccgg ctcaaagcgc tgggcgggat ggaatcgaaa
3061 ccgtgcgcc ggggccataa aatgattatc ggcatgcggg gttctatgg ccgctgtgct
3121 atgattggca tgctgtctc ggtggtcga ctgggtgtt tcaaccgct atcggtgggg
3181 gccgggttga tctcggccg gatggcatat aaagaggaca aacaaaaccg gttgtcggg
3241 gtgcgcagcg aggccaaggc caatgtcgg cgcttcgtc acgacattc gttctgtc
3301 agcaacaat cacgggatcg gctcaagatg atccagctc tgctgcgca cactaccgc
3361 gagatcgccg aagagatcac ccggtcgtc accgagtcct tcagggcgac catcgcgcg
3421 gcgcaggtgg cggaaaccga gcgggacaat cgaattcggg aattcagcg gcaattgggt
3481 atctgagcc aggtcaacga caacctgcc ggcttgagc caacctgac gcccgggccc
3541 agcttgggac gagcgtgagc accagcgacc ggtccgcgc gattctgac gcaaccatc
3601 aggcctaccg ggggtcgccc gcctatctc agcgtggcga cgtttttgc cagctggacc
3661 gcacgggtgc gcctagcc gaaccgtgc gcacgcgtt ggtggcaca ctcaaggccc
3721 gaaaatecac tctgtcaac gccctgtcg gcgacgacat cgtccgacc gatgccaccg
3781 aggccaccg gatttgacc tggttccggc acggtccgac acccggggtc accgccaacc
3841 atcgcgcgcg tcgacgcgc aacgtgccga tccccgtc gggcgggctg agtttcgac
3901 tgcgcaggat caaccggcc gagctgatc acctggaagt cgagtggcca gccaggaac
3961 tcatcgacgc caccattgtt gacaccccg gaacgtcgtc gttggcatg gatgctccg
4021 agcgcacgtt gcggtgctg gtccccccc acggggtgcc tcgggtggat gcggtggtg
4081 tctgttgcg caccctgaac gccgtgacg tcgcgtgct caaacagatc ggtgggctgg
4141 tcggcgggtc ggtgggagcc ctgggcatca tcggggtggc gtctgcgcg gatgagatc
4201 gcgcggggcg catcgacgc atgtctcgg ccaacgacgt ggccaagcgg tccaccgcg
4261 aactgaacca gatgggcatt tgccaggcgg tgggtccggt atccggactt ctgctgta

FIG. 5B



4321 ccgcgcgcac actgcgccag accgagttca tcgcgtgcg caagctggcc ggtgccgagc
4381 gcaccgagct caatagggcc ctgctgagcg tggaccgttt tgtgcgccgg gacagtccgc
4441 taccggtgga cgcgggcatc cgtgcgcaat tgctcgagcg gttcggcatg ttcggcatcc
4501 ggatgtcgat tgccgtgctg gcggccggcg tgaccgattc gaccgggctg gccgccgaac
4561 tgctggagcg cagcgggctg gtggcgctgc gcaatgtgat agaccagcag ttcgcgcage
4621 gctccgacat gcttaaggcg cataccgctt tggctctctt gcgcgattc gtgcagacgc
4681 atccggtgcc ggcgaccccg tacgtcattg ccgacatcga cccgttgcta gccgacacc
4741 acgccttcga agaactccga atgctaagcc tttgccttc gcgggcaacg acattgaacg
4801 acgacgaaat cgcgtcgctg cgcgcacatc tcggcgggtc gggcaccagt gccgccgctc
4861 ggctgggect ggatcccgcg aattctcgcg aggccccgcg cgcgcgctg gccgcagcgc
4921 aacactggcg tcgccgtgcg gcgcacccac tcaacgatcc gtccactacc agggcctgtc
4981 gcgcggcggg gcgcagcgcc gaggcgatgg tggcggagtt ctctgctcgc cgctga

FIG. 5C

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Rv0341 (iniB)

MTSLIDYILSLFRSEDAARSFVAAPGRAMTSAGLIDIAPHQISSVAANVVPGLNLGAGDPMSGL
RQAVAARHGFAQDVANVGFAGDAGAGVASVITTDVGAGLASGLGAGFLGQGGALALAASSGG
FGGQVGLAAQVGLGFTAVIEAEVGAQVAGLIGITGLGAQAGMGFGGGVGLGLGGQAGGVI
GGSAAAGAGAGVGGRLGGNGQIGVAGQAGVAGVAGVGGQAGIASQIGVSAGGGGLGGVGN
VSGLTGVSNAVLASNASGQAGLIASEGAALNGAAMPHLSGPLAGVGVGGQAGAAGGAGLG
FGAVGHPTPQPAALGAAGVVAKTEAAAGVVGVGATAAGVGGAGHDILGHEGAALGSVDT
VNAGVTPVEHGLVLPSPGLIHGGTGGYGGMNPPVTDAPAPQVPARAQPMTTAAEHTPAVTQ
PQHTPVEPPVHDKPPSHSVFDVGHEPPVTHTPPAPIELPSYGLFGLPGF

Rv0342 (iniA)

MVPAGLCAYRDLRRKRARKWGDVTQPDPRRVGVIVELIDHTIAIAKLNERGDLVQRLTRA
RQRITDPQVRVVIAGLLKQKQSLLNSLLNLPAARVGDDEATVVITTVSSYAQPSARLVLAAGP
DGTAAVDIPVDDISTDVRAPHAGGREVLVEVGAPSPLLRGGLAFIDTPGVGGLGQPHLSA
TLGILLPEADAVLVSDTSQEFTPEMWFVRQAHQICPVGAVVATKTDLYPRWREIVNANAHA
LQARVPMPPIAVSSLLRSHAVTLNDKELNEESNFPPIVKFLSEQVLSRATERVRAGVLGEIRSA
TEQLAVSLGSELSVVNDPNLRDLASDLERRKREAQQAVQQTALWQQVLGDGFNDLTADVD
HDLRTRFRFTVTEDAERQIDSCDPTAHWAEIGNDVENAIATAVGDNFVWAYQRSEALADDVA
RSFADAGLDSVLSAELSPHVMGTDFGRLKALGRMESKPLRRGHKMIIGMRGSYGGVVMIGML
SSVVGLGLFNPLSVGAGLILGRMAYKEDKQNRLLRVRSEAKANVRRFVDDISFVVSQSRDRL
KMIQRLRLRDHYREIAEEITRSLTESLQATIAAAQVAETERDNRIRELQRQLGILSQVNDNLGL
EPTLTPRASLGRA

Rv0343 (iniC)

MSTSDRVRAILHATIQAIRGAPAYRQRGDVFCQLDRIGARLAEPLRIALAGTLKAGKSTLVNAL
VGDDIAPTDATATRVITWFRHGPTRPVANHRGGRRANVPITRRGGLSFDLRRINPAELIDL
EVEWPAEELIDATVDTPTGSSLACDASERTLRLLVPADGVPRVDVAVFLLRTLNAADVALLKQI
GGLVGGSVGALGIIGVASRADEIGAGRIDAMLSANDVAKRFTRELNQMGICQAVVPVSGLLAL
TARTLRQTEFIALRKLAGAERTELNRALLSVDRFVRRDSPLPVDAGIRAQLLERFGMGFIRMSI
AVLAAGVTDSTGLAAELLERSGLVALRNVIDQQFAQRSDMLKAHTALVSLRRFVQTHFVPATP
YVIADIDPLLADTHAFEELRMLSLPSRATTLLNDDIASLRRIGGSGTSAAARLGLDPANSREA
PRAALAAAQHWRRRAAHLNDPFTTRACRAAVRSAEAMVAEFSARR

FIG. 6

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11:11:11
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